

# **Exhibit A**

**1. U.S. Patent No. 9,348,622**

<b>Term</b>	<b>Virtuozzo's Construction &amp; Evidence</b>	<b>Cloud Linux's Construction &amp; Evidence</b>
<p>“container”</p> <p>Asserted Claims 1-3, 5, 6, 9</p>	<p>This term does not need construction and can be understood under its plain and ordinary meaning.</p> <p>To the extent a construction is necessary:</p> <p>“a set of components”</p> <p><b>Intrinsic evidence:</b> '622 patent, Abstract; FIG. 1, <b>102</b>; FIG. 2; FIG. 3; FIG. 4, <b>102.1</b>, <b>102.2</b>, <b>102.3</b>, <b>102.4</b>, <b>102.5</b>, <b>102.6</b>; FIG. 7, <b>102</b>; FIG. 8, <b>102</b>; 1:18-37; 2:4-18; 2:48-62; 3:25-42; 4:62-5:9; 5:43-58; 7:20-26; 7:48-8:3.</p>	<p>“isolated user space that is identical to a real server from a user point of view. Each container has entire OS components except for the kernel. The applications from different containers cannot interact with each other. Each container has its own set of user groups, processes and devices isolated from the host OS and from other containers. Each container has its own allocated resource quotes”</p> <p><b>Intrinsic evidence:</b> '622 patent, 1:18-32, 2:12-22, 2:48-56, 3:38-42, 4:5-42, 9:51-54; FIGs. 1-4; April 4, 2016 Amendment and Reply.</p>
<p>“virtualize” / “virtualization”</p> <p>Asserted Claims 1-4, 6, 8</p>	<p>This term does not need construction and can be understood under its plain and ordinary meaning.</p> <p>To the extent a construction is necessary:</p> <p>“to create a virtual version of something.”</p> <p><b>Intrinsic evidence:</b> '622 patent, 1:31-37; 2:23-34; 3:25-42; 3:51-67; 4:57-6:60; 8:4-28; 10:59-11:16; Applicant's Response to Non-Final Rejection, pp. 6-7 (Apr. 4, 2016).</p>	<p>“providing isolation and limitation of resources”</p> <p><b>Intrinsic evidence:</b> '622 patent, 5:43-58, 8:1-3, 9:51-54, 10:1-50, 11:40-12:32; FIGs. 3, 4, 7-9; April 4, 2016 Amendment and Reply.</p>

## 2. US Patent No. 7,461,148

Term	Virtuozzo's Construction & Evidence	Cloud Linux's Construction & Evidence
<p>“adversely affect a CPU time allocation of threads of other VPS”</p> <p>Asserted Claims: 1, 56</p>	<p>Not indefinite; “deprive CPU time allocated to the threads of another VPS”</p> <p><b>Intrinsic evidence:</b></p> <p>'148 patent, FIG. 1B; FIG. 2; FIG. 3; FIG. 4; 2:14-31; 2:55-3:4; 4:54-56; 7:37-8:48; 10:56-11:7; Applicant Amendment and Reply Under 37 C.F.R. § 1.111, p. 23 (June 6, 2008).</p>	<p>Indefinite.</p> <p><b>Intrinsic evidence:</b></p> <p>'148 patent, 8:1-18, 10:57-11:38; FIG. 2; Nov. 10, 2003 Claims; June 6, 2008 Amendment and Reply; May 5, 2008 Examiner Interview Summary; August 29, 2008 Notice of Allowance.</p>
<p>“the users”</p> <p>Asserted Claim: 56</p>	<p>Not indefinite; “users of the VPSs”</p> <p><b>Intrinsic evidence:</b></p> <p>'148 patent, Abstract; FIG. 1B, <b>112A, 112B</b>; FIG. 3, <b>112A, 112B</b>; FIG. 7, <b>112</b>; 2:41-46; 3:5-16; 4:11-46; 5:31-55; 5:67-6:28; 6:52-56; 7:3-6; 7:12-24; 7:41-46; 10:17-56; 10:65-11:43; 12:7-16; 13:65-14:13; 15:58-16:4; 16:37-49; 17:22-38; 18:32-14; 18:55-19:4; 19:9-34; 19:46-64; 20:15-35; 20:40-21:2; 21:14-34; 21:56-22-10; 22:20-50; 22:51-23:10.</p>	<p>Indefinite.</p> <p><b>Intrinsic evidence:</b></p> <p>'148 patent, each specification passage referencing “user(s)” and surrounding context; claim 56</p>
<p>“virtual private server” / “VPS”</p> <p>Asserted Claims: 1-3, 5-10, 12, 13, 15-17, 56-59</p>	<p>“a closed set of processes, system resources, users, groups of users, objects, and data structures that offers a simulated server substantially similar to a dedicated server”</p> <p><b>Intrinsic evidence:</b></p>	<p>“a closed set, or collection, of processes that appears to a user as a stand-alone server and offers to its users a service that is functionally substantially equivalent to a standalone server with remote access. From the perspective of an administrator, the VPS appears substantially the same as a dedicated computer of a data center. From the user perspective, the VPS</p>

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	<p>'148 patent, FIG. 1A, <b>104</b>; FIG. 1B, <b>104A, 104B</b>; FIG. 3, <b>104A, 104B</b>; FIG. 4, <b>104A, 104B</b>; Abstract; 1:48-2:33; 2:37:3:33; 4:13-56; 5:1-8; 5:31-39; 5:46-55; 6:7-50; 7:12-24; 8:30-37; 9:49-67; 12:57-13:16; 13:29-14:5; 14:24-34; 14:39-44; 15:58:24:17</p>	<p>functionally acts essentially like a remote server, and offers the same services. Each VPS has its own virtual address space (or its own set of addresses), which includes memory, IP addresses, disk drive addresses, SMB network names, TCP names, pipe names, etc. Each VPS has its own objects and data structures. Each of the objects and the data structures of each VPS has a unique identifier in a context of the operating system kernel. Each VPS cannot affect data structures of another VPS, or objects of another VPS, and cannot access information about processes running on another VPS. Each VPS includes isolation of address space of each user from address space of a user on any other VPS, isolation of server resources for each VPS, and isolation of application program failure effects on any other VPS. Each VPS also includes a number of interfaces that permit the user to access the various services available on the server and on the kernel"</p> <p><b>Intrinsic evidence:</b> '148 patent, 1:17-19, 1:51-53, 1:56-64, 2:47-3:4, 3:31-32, 3:40-44, 4:13-21, 4:35-37, 4:51-52, 5:31-37, 5:46-48, 6:24-28, 7:8-11, 7:18-31, 7:58-62, 8:38-48, 14:6-34; FIG. 4; Nov. 10, 2003 Claims; June 6, 2008 Amendment and Reply; May 5, 2008 Examiner Interview Summary; August 29, 2008 Notice of Allowance.</p>

**3. U.S. Patent No. 10,795,659**

Term	Virtuozzo's Construction & Evidence	Cloud Linux's Construction & Evidence
<p>“user space”</p> <p>Asserted Claim: 8</p>	<p>“memory address space outside the kernel space”</p> <p><b>Intrinsic evidence:</b>  ’659 patent, FIG. 1, <b>142</b>; 1:37-38; 1:59-2:8; 2:49-60;  4:36-46; 9:34-42.</p>	<p>“the memory address space in which user processes run, which is outside of the memory occupied by the kernel”</p> <p><b>Intrinsic evidence:</b>  ’659 patent, 1:34-55, 1:59-62, 4:36-46; FIG. 1;  Provisional App. No. 62/580,611 at 1-3, 8-9.</p>

**4. U.S. Patent No. 8,145,740**

<b>Term</b>	<b>Virtuozzo's Construction &amp; Evidence</b>	<b>Cloud Linux's Construction &amp; Evidence</b>
<p>“each appearing to the users as a stand-alone server”</p> <p>Asserted Claims: 1, 13</p>	<p>This term does not need construction and can be understood under its plain and ordinary meaning.</p> <p>To the extent a construction is necessary:</p> <p>“each virtual environment appearing to the users as an actual remote computer”</p> <p><b>Intrinsic evidence:</b> '740 patent, Abstract; FIG. 1; 4:10-29.</p>	<p>“perceived by each end user as if the user obtained full network root access to a common computer with a fully-featured operating system installed on it. From the point of view of the end user of a personal computer, each virtual computing environment is the actual remote computer, with the network address, at which the end user can perform all actions allowed for the ordinary computer: the work in command shells, compilation and installation of programs, configuration of network services, work with offices and other applications”</p> <p><b>Intrinsic evidence:</b> '740 patent, 4:10-29, FIG. 1.</p>
<p>“the users”</p> <p>Asserted Claims: 1, 13</p>	<p>Not indefinite; “users of the virtual environment”</p> <p><b>Intrinsic evidence:</b> '740 patent, Abstract; FIG. 1, <b>10, 20, 30</b>; 4:19-41; 4:65-5:3.</p>	<p>Indefinite.</p> <p><b>Intrinsic evidence:</b> '740 patent, each specification passage referencing “user(s)” and surrounding context; claims 1, 13</p>
<p>“guest OS”</p> <p>Asserted Claims: 1, 13</p>	<p>Not indefinite; no construction required independent of “guest OS kernel.”</p> <p><b>Intrinsic evidence:</b> <i>See</i> Intrinsic Evidence for “guest OS Kernel,” <i>infra</i>.</p>	<p>Indefinite. Alternatively, plain and ordinary meaning, or “processes and files constituting the kernel in a guest OS”</p> <p><b>Intrinsic evidence:</b></p>

Term	Virtuozzo's Construction & Evidence	Cloud Linux's Construction & Evidence
		'740 patent, 2:58-3:30, 3:34-57, 4:30-41, 4:42-57, 4:58-64, 4:65-5:3, 5:4-15; FIGS. 2, 3; Provisional App. No. 60/269,655 at 5-9.
<p>"guest OS kernel"</p> <p>Asserted Claims: 1, 13</p>	<p>Not indefinite; "an instance of the operating system (OS) kernel"</p> <p><b>Intrinsic evidence:</b> '740 patent, FIG. 2; FIG. 3, <b>60, 70</b>; 3:34-41; 4:10-18; 4:30-41; 4:58-5:3; 5:29-31; 6:1-3; 6:7-8; 6:15-17; 6:45-47; 6:51-53.</p>	<p>Indefinite. Alternatively, plain and ordinary meaning, or "processes and files constituting the kernel in a guest OS"</p> <p><b>Intrinsic evidence:</b> '740 patent, 2:58-3:30, 3:34-57, 4:30-41, 4:42-57, 4:58-64, 4:65-5:3, 5:4-15, 5:46-49, 6:52-58; FIGS. 2, 3; Provisional App. No. 60/269,655 at 5-9.</p>
<p>"main operating system (OS)"</p> <p>Asserted Claims 1, 13</p>	<p>Not indefinite; this term does not need construction and can be understood under its plain and ordinary meaning.</p> <p>To the extent a construction is necessary:</p> <p>"host operating system (OS)"</p> <p><b>Intrinsic evidence:</b> '740 patent, Abstract; FIG. 1; 3:34-41; 3:64-67; 4:10-18; 4:30-41; 4:54-5:3.</p>	<p>Indefinite. Alternatively, "operating system that includes inside it one or more guest operating systems"</p> <p><b>Intrinsic evidence:</b> '740 patent, 2:58-3:30, 3:34-57, 4:30-41, 4:42-57, 4:58-64, 4:65-5:3, 5:4-15; FIGS. 2, 3; Provisional App. No. 60/269,655 at 5-9.</p>
<p>"root user"</p> <p>Asserted Claims 1, 13</p>	<p>This term does not need construction and can be understood under its plain and ordinary meaning.</p> <p><b>Intrinsic evidence:</b></p>	<p>"user with omnipotent access rights such as system administrator rights"</p> <p><b>Intrinsic evidence:</b></p>

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	'740 patent, 3:42-57; 3:54-57; 4:10-18; 5:4-12; 5:42-43; 6:29-30.	'740 patent, 2:54-57, 3:54-57, 4:12-15, 5:8-16.
<p>“virtual environment”</p> <p>Asserted Claims: 1-3, 13-15, 20</p>	<p>This term does not need construction and can be understood under its plain and ordinary meaning.</p> <p><b>Intrinsic evidence:</b>  '740 patent, Abstract; FIG. 1; FIG. 2, <b>40, 50</b>; FIG. 3; 3:20-30; 3:34-57; 4:10-5:15.</p>	<p>“environment that emulates a complete computer with installed operating system and is functionally equivalent to a computer with a full-featured operating system. Each virtual environment includes a complete set of processes and files of an emulated operating system, where all processes are common processes of the operating system and all the resources inherent to the virtual environment are shared in the same way as typically happens inside an ordinary single kernel operating system”</p> <p><b>Intrinsic evidence:</b>  '740 patent, 3:22-26, 3:36-39, 3:64-67, 4:15-18, 4:30-41, 4:47-48; FIGS. 1, 2, 3.</p>



## 5. U.S. Patent No. 8,539,137

### A. Agreed Upon Constructions

Term	Agreed Construction	Asserted Claims
“disk image”	“a set of data that represents the contents of a disk storage or contents of a partition corresponding to virtual storage on a block level”	<b>U.S. Patent No. 8,539,137</b> Asserted Claims: 1, 10

### B. Disputed Constructions

Term	Virtuozzo’s Construction & Evidence	Cloud Linux’s Construction & Evidence
“virtual disk drive”  Asserted Claim: 1	This term does not need construction and can be understood under its plain and ordinary meaning.  <b>Intrinsic evidence:</b> ’137 patent, Abstract; 2:59-4:50; 6:34-39; 8:40-44; 10:1-14.	“block-level storage space that may be regarded by the user of a computer system as addressable hardware storage, or a storage partition, using virtual addresses, that are utilized during virtual disk input/output operations as physical addresses”  <b>Intrinsic evidence:</b> ’137 patent, 4:25-28, 6:16-20, 7:38-50, 7:51-54, 10:6-14, FIGS. 1, 2.
“Virtual Execution Environment” / “VEE”	“a type of execution environment that supports program code execution, where at least part of the real hardware and software are virtualized”  <b>Intrinsic evidence:</b>	“a type of environment that supports program code execution, where at least a part of the real hardware and software required for running program code are presented as their virtual analogs. From the point of

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Asserted Claims: 1, 10	'137 patent, 2:59-3:26; 5:42-47; Applicant's Response to Non-Final Action, pp. 12-14 (Aug. 3, 2011).	view of the user, the code in VEE runs as if it were running on the real computing system"  <b>Intrinsic evidence:</b> '137 patent, 5:42-47.